

**ABSTRACT**

5      Microparticles for use in the pulmonary delivery of a therapeutic material, comprising a polymer matrix, which is prefabricated to have a particular geometric shape including that of a disc cube, rectangle or snowflake. Additionally, these microparticles may include a winged structure to enhance the aerodynamic characteristics of said microparticle. Microfabrication methods for making these microparticles are provided.